

WHAT IS CLAIMED IS:

1. A system for producing a distributed document having an ordered compilation of information, the system comprising multiple fragment editor executables that function cooperatively as one implemented document type declaration (DTD) wherein said multiple fragment editor executables are distributed among multiple sites of a computer network and operate in a peer-to-peer environment without need for a central server, the system allowing multiple authors to edit the distributed document contemporaneously while allowing each of the multiple authors to view edits made by others of the multiple authors.
2. The system of claim 1, wherein replicates of the complete document reside at the multiple sites of the computer network.
3. The system of claim 2, wherein an edit made by any one of the multiple authors is propagated among the replicates residing at the multiple sites of the computer network.
4. The system of claim 3, wherein an edit made by any one of the multiple authors is immediately propagated among the replicates residing at the multiple sites of the computer network.
5. The system of claim 3, wherein an edit made by any one of the multiple authors is delayed before being propagated among the replicates residing at the multiple sites of the computer network.
6. The system of claim 5, wherein an edit made by any one of the multiple authors is relayed to intervening personnel, and thus is delayed, before being propagated among the replicates residing at the multiple sites of the computer network.
7. The system of claim 2, wherein an edit made by any one of the multiple authors is propagated as an atomic transaction among the replicates residing at the multiple sites of the computer network.

8. The system of claim 2, wherein the replicates reside in computer memory at the multiple sites of the computer network.
9. The system of claim 8, wherein the replicates are persisted by writing to computer hard disks at the multiple sites of the computer network.
- 5 10. The system of claim 1, wherein each author of the multiple authors is assigned an entity type having associated therewith corresponding executables that define the role an author can play in creating distributed document.
- 10 11. The system of claim 10, wherein the roles that an author may play in creating the distributed document include: root context author, context author, and content author.
12. The system of claim 1, wherein a subscriber can view edits made by one or more of the multiple authors.
- 15 13. The system of claim 1, wherein the ordered compilation is an SGML document.
14. The system of claim 13, wherein the ordered compilation is an SGML document selected from the group consisting of XML and HTML.
- 20 15. The system of claim 1, the system comprising:
 - (a) executable computer code for a root context author generator comprising:
 - 25 (1) computer code for creating root node associated executable code for at least one root context author wherein said root context author is editor type;
 - (2) computer code for distribution through a communication medium to said root context author said executable code;

(b) executable computer code for said root context author comprising:

- (3) computer code for maintaining and updating a recordation of each node added to a document;
- (4) computer code for creating an initial user interface wherein said user interface receives and displays the content of said document from other nodes and said interface enables said root context author to enter content edits in an assigned area of said document;
- (5) computer code for propagating content changes from said root context author to all other replicate view nodes at author and subscriber sites;
- (6) computer code for creating root node associated executable code for at least one target node wherein the type of said target node is selected from the group consisting of a context author and a content author wherein said context author can administrate and is editor type and said content author is editor type;
- (7) computer code for distributing through a communication medium to said target node said root node associated executable code;
- (8) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type;
- (9) computer code for distributing through a communication medium to said target subscriber said subscriber executable code;
- (10) computer code for said administration wherein said administration comprises the ongoing granting and

revoking of descendent node privileges, the ongoing configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code;

5

(11) code for populating said document at startup;

(c) executable code for said context author wherein said context author comprises:

(12) computer code for maintaining and updating a recordation of each node added to a document;

10

(13) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said context author to enter content edits in the assigned area of said document;

15

(14) computer code for propagating content changes from its own node to all other replicate view nodes at author and subscriber sites;

(15) computer code for responding to an administrative request;

20

(16) computer code for creating node associated executable code for at least one target node wherein said target node is selected from the group consisting of a context author and a content author wherein said context author can administrate and is editor type and said content author is editor type;

25

(17) computer code for distributing through a communication medium to said target node said associated executable code;

5

(18) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type;

10

(19) computer code for distributing through a communication medium to said target subscriber said subscriber executable code;

(20) computer code for said administration wherein said administration comprises the ongoing granting and revoking of descendent node privileges, the ongoing configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code;

15

(21) computer code for populating said document at startup;

(d) executable code for said content author wherein said content author comprises:

20

(22) computer code for maintaining and updating a recordation of each node added to a document;

(23) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said content author to enter content edits in the assigned area of said document;

25

(24) computer code for propagating content changes from its own node to all other replicate view nodes at author and subscriber sites;

(25) computer code for responding to an administrative request;

- 5 (26) computer code for creating subscriber executable code
for at least one target subscriber wherein said target
subscriber is not editor type;
- (27) computer code for distributing through a communication
medium to said target subscriber said subscriber
executable code;
- (28) computer code for populating said document at startup;
- (e) executable code for said subscriber wherein said subscriber
comprises:
 - 10 (29) computer code for a user interface wherein said user
interface receives and displays the content of said
document;
 - (30) computer code for responding to an administrative
request;
 - 15 (31) computer code for populating said document at startup.
16. The system of claim 15, wherein the ordered compilation is an SGML
document.
17. The system of claim 15, wherein the ordered compilation is an SGML
document selected from the group consisting of XML and HTML.
- 20 18. The system of claim 15, wherein the nodes produced by said root
context author and said context author are semantically valid elements
within a document type declaration.
19. A system for producing an ordered compilation of information in a
computer network environment, the system comprising:
 - 25 (a) executable computer code for a root context author generator
comprising:

- (1) computer code for creating root node associated executable code for at least one root context author wherein said root context author is editor type;
- (2) computer code for distribution through a communication medium to said root context author said executable code;

(b) executable computer code for said root context author comprising:

- (3) computer code for maintaining and updating a recordation of each node added to a document;
- (4) computer code for creating an initial user interface wherein said user interface receives and displays the content of said document from other nodes and said interface enables said root context author to enter content edits in an assigned area of said document;
- (5) computer code for propagating content changes from said root context author to all other replicate view nodes at author and subscriber sites;
- (6) computer code for creating root node associated executable code for at least one target node wherein the type of said target node is selected from the group consisting of a context author and a content author wherein said context author can administrate and is editor type and said content author is editor type;
- (7) computer code for distributing through a communication medium to said target node said root node associated executable code;
- (8) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type;

- (9) computer code for distributing through a communication medium to said target subscriber said subscriber executable code;
- (10) computer code for said administration wherein said administration comprises the ongoing granting and revoking of descendent node privileges, the ongoing configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code;
- (11) code for populating said document at startup;
- (c) executable code for said context author wherein said context author comprises:
 - (12) computer code for maintaining and updating a recordation of each node added to a document;
 - (13) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said context author to enter content edits in the assigned area of said document;
 - (14) computer code for propagating content changes from its own node to all other replicate view nodes at author and subscriber sites;
 - (15) computer code for responding to an administrative request;
 - (16) computer code for creating node associated executable code for at least one target node wherein said target node is selected from the group consisting of a context author and a content author wherein said context author can

administrate and is editor type and said content author is editor type;

(17) computer code for distributing through a communication medium to said target node said associated executable code;

(18) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type;

(19) computer code for distributing through a communication medium to said target subscriber said subscriber executable code;

(20) computer code for said administration wherein said administration comprises the ongoing granting and revoking of descendent node privileges, the ongoing configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code;

(21) computer code for populating said document at startup;

(d) executable code for said content author wherein said content author comprises:

(22) computer code for maintaining and updating a recordation of each node added to a document;

(23) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said content author to enter content edits in the assigned area of said document;

(24) computer code for propagating content changes from its own node to all other replicate view nodes at author and subscriber sites;

5

(25) computer code for responding to an administrative request;

(26) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type;

10

(27) computer code for distributing through a communication medium to said target subscriber said subscriber executable code;

(28) computer code for populating said document at startup;

(e) executable code for said subscriber wherein said subscriber comprises:

15

(29) computer code for a user interface wherein said user interface receives and displays the content of said document;

(30) computer code for responding to an administrative request;

20

(31) computer code for populating said document at startup.

20. A system as in Claim 19, wherein the ordered compilation is an SGML document.

21. A system as in Claim 20, wherein the ordered compilation is an SGML document selected from the group consisting of XML and HTML.

25

22. A system as in Claim 19, wherein the nodes produced by said root context author and said context author are semantically valid elements within a document type declaration.

23. A method for producing an ordered compilation of information in a computer network environment, the method comprising:

(a) creating executable computer code for a root context author generator comprising:

- (1) computer code for creating root node associated executable code for at least one root context author wherein said root context author is editor type;
- (2) computer code for distribution through a communication medium to said root context author said executable code;

(b) creating executable computer code for said root context author comprising:

- (3) computer code for maintaining and updating a recordation of each node added to a document;
- (4) computer code for creating an initial user interface wherein said user interface receives and displays the content of said document from other nodes and said interface enables said root context author to enter content edits in an assigned area of said document;
- (5) computer code for propagating content changes from said root context author to all other replicate view nodes at author and subscriber sites;
- (6) computer code for creating root node associated executable code for at least one target node wherein the type of said target node is selected from the group consisting of a context author and a content author wherein said context author can administrate and is editor type and said content author is editor type;

- (7) computer code for distributing through a communication medium to said target node said root node associated executable code;
- (8) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type;
- (9) computer code for distributing through a communication medium to said target subscriber said subscriber executable code;
- (10) computer code for said administration wherein said administration comprises the ongoing granting and revoking of descendent node privileges, the ongoing configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code;
- (11) code for populating said document at startup;
- (c) creating executable code for said context author wherein said context author comprises:
 - (12) computer code for maintaining and updating a recordation of each node added to a document;
 - (13) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said context author to enter content edits in the assigned area of said document;
 - (14) computer code for propagating content changes from said context author to all other replicate view nodes at author and subscriber sites;

- (15) computer code for responding to an administrative request;
- (16) computer code for creating node associated executable code for at least one target node wherein said target node is selected from the group consisting of a context author and a content author wherein said context author can administrate and is editor type and said content author is editor type;
- (17) computer code for distributing through a communication medium to said target node said associated executable code;
- (18) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type;
- (19) computer code for distributing through a communication medium to said target subscriber said subscriber executable code;
- (20) computer code for said administration wherein said administration comprises the ongoing granting and revoking of descendent node privileges, the ongoing configuration of descendent node user interfaces, and the ongoing configuration of descendent node supplementary computer code;
- (21) computer code for populating said document at startup;
- (d) creating executable code for said content author wherein said content author comprises:
 - (22) computer code for maintaining and updating a recordation of each node added to a document;

5

(23) computer code for a user interface wherein said user interface receives and displays the content of said document and said interface enables said content author to enter content edits in the assigned area of said document;

10

(24) computer code for propagating content changes from said content author to all other replicate view nodes at author and subscriber sites;

(25) computer code for responding to an administrative request;

15

(26) computer code for creating subscriber executable code for at least one target subscriber wherein said target subscriber is not editor type;

(27) computer code for distributing through a communication medium to said target subscriber said subscriber executable code;

(28) computer code for populating said document at startup;

(e) creating executable code for said subscriber wherein said subscriber comprises:

20

(29) computer code for a user interface wherein said user interface receives and displays the content of said document;

(30) computer code for responding to an administrative request;

25

(31) computer code for populating said document at startup.

24. A method as in Claim 23, wherein the ordered compilation is an SGML document.

25. A method as in Claim 24, wherein the ordered compilation is an SGML document selected from the group consisting of XML and HTML.
26. A method as in Claim 23, wherein the nodes produced by said root context author and said context author are semantically valid elements within a document type declaration.

5